



034Motorsport 2.7T Drop-In Fuel Rail Install Guide



This guide has been created to help facilitate an easy install of our fuel rail kit. These are not step by step instructions, but rather a guide to help answer some basic questions you may have during the install.

Tools Required:

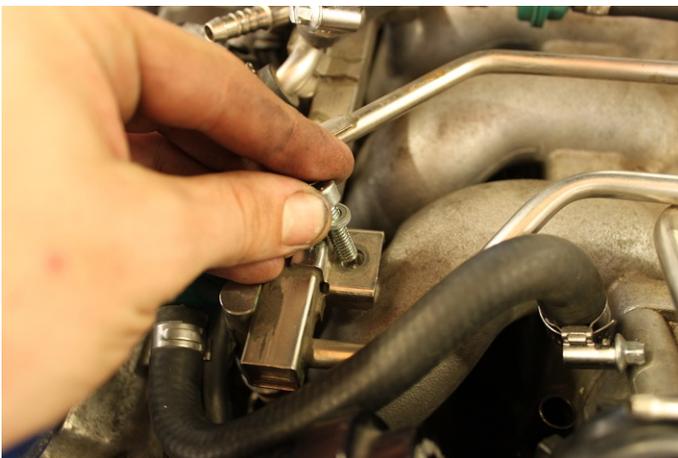
- 5mm allen wrench
- Flathead screwdriver
- Large adjustable crescent wrench
- 19mm wrench/socket
- 10mm socket

1. There are some basic differences between 2000 model year cars and 2001 model year cars; this guide is written for the later models. Some additional or slightly different steps may need to be taken to remove the F-hose on earlier cars.
2. Remove Y-pipe via the three 10mm bolts on top;

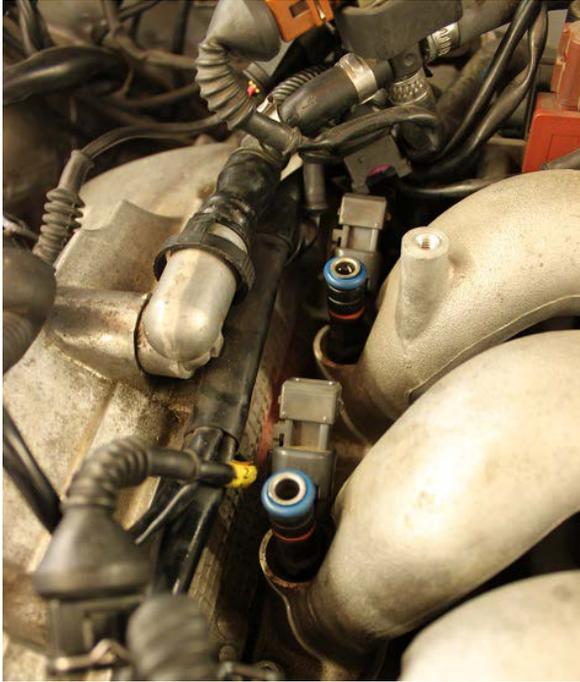




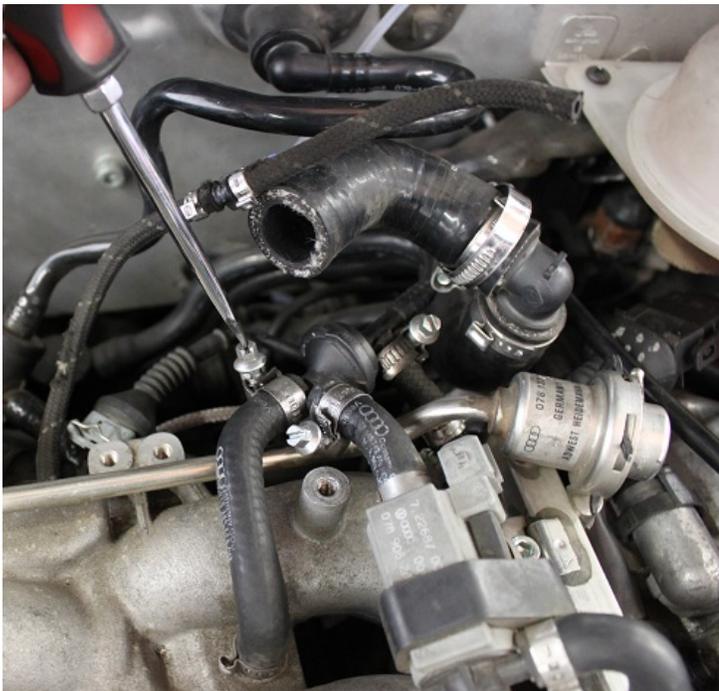
3. Next, remove fuel rail via the four 5mm allen bolts; remember that if you've started your car recently, there will be pressure in the rail, so be prepared when removing injectors from the fuel and fuel lines from the rail. Ensure there are no open flames anywhere near the vehicle, safety first, and have some rags ready to soak up the extra fuel.



4. Remove injectors from factory fuel rail if installing new injectors; ensure that no o-rings fall off and left in the intake manifold or factory fuel rail

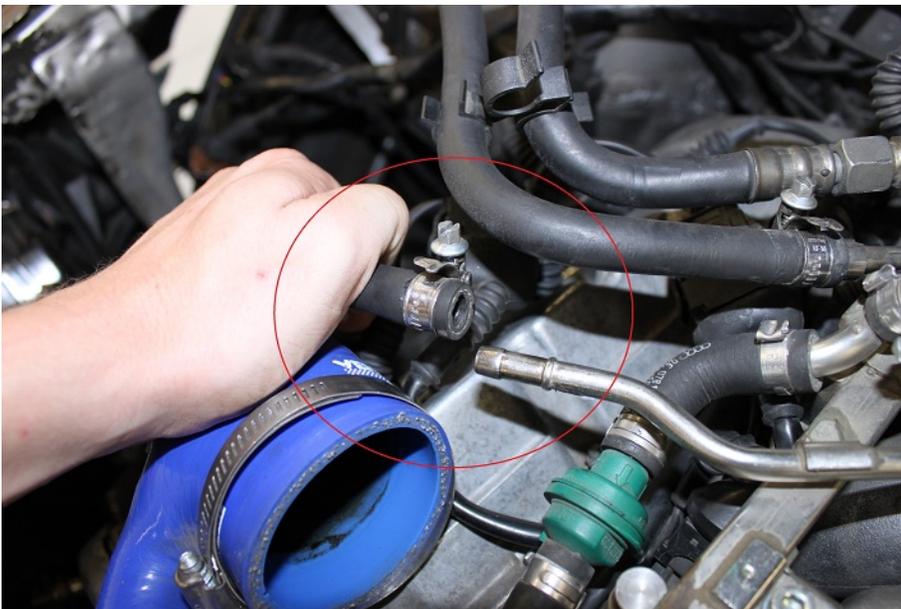


5. Remove N249 and N80 valves from the fuel rail; the 034EFI Billet Fuel Rail kit deletes the unnecessary N249. You can have this coded out via your software, you can leave the connector plugged into the valve, or we can provide a resistor bypass. You may also want to cap off the vacuum pump check valve that is no longer utilized with the removal of the N249.

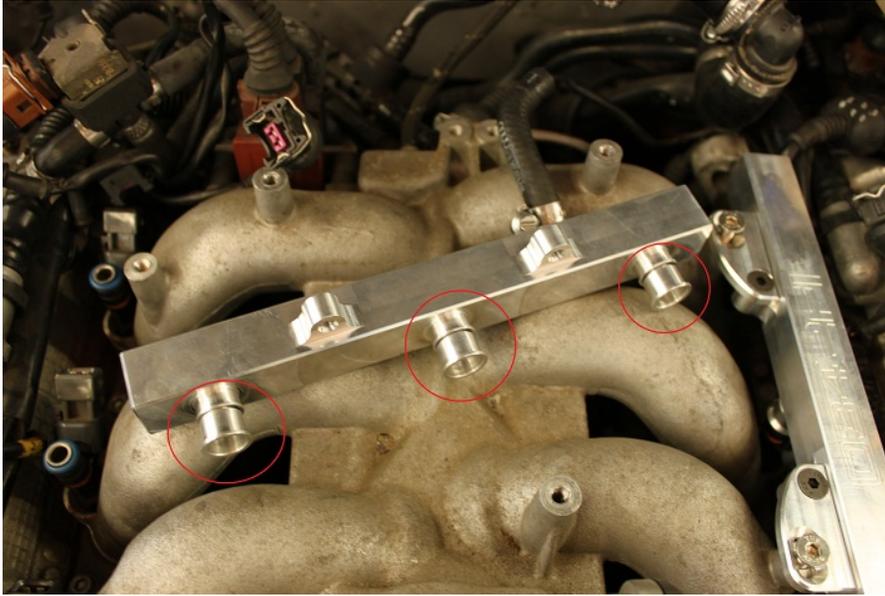




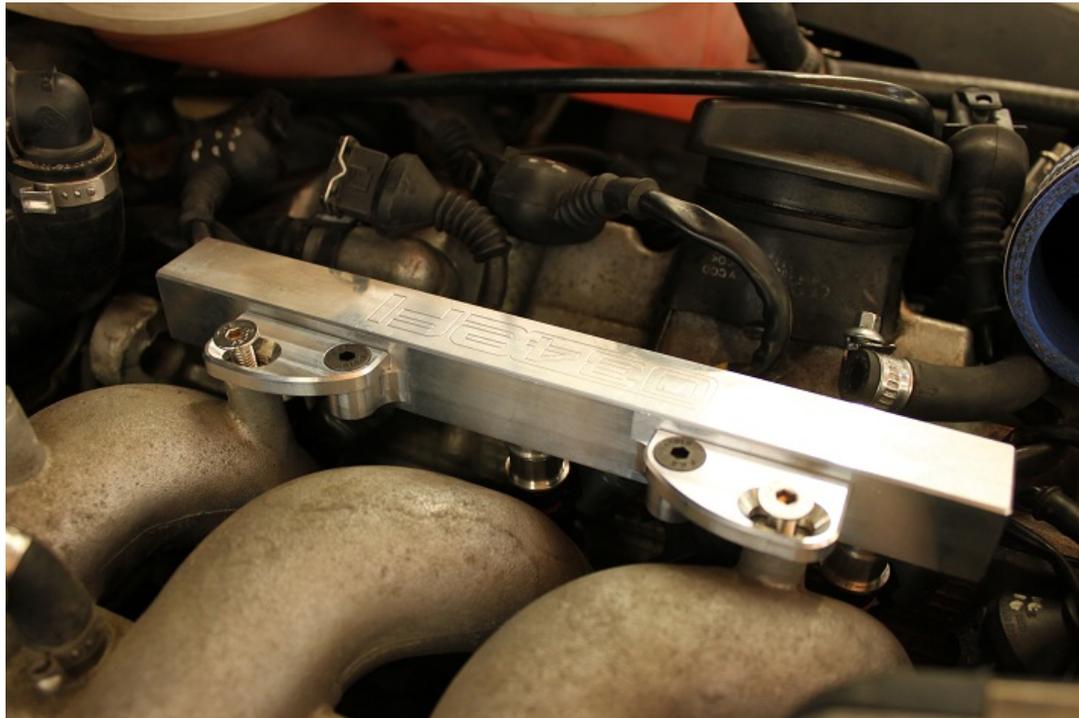
6. Remove the Fuel Pressure Regulator with care from the factory fuel rail, this will be used with the 034Motorsport billet fuel pressure regulator adapter
7. Remember to ensure that no debris falls into your intake manifold while the injectors are removed
8. Plug, cap, or connect the two pressure hoses that come up from both inlet pipes; this is just an equalization tube between the two turbos and is redundant



9. Next, install the injectors into the 034EFI Billet Fuel Rails; we recommend using a small amount of fuel, brake cleaner, or other fast drying lubricant to ensure the o-rings install smoothly. Depending on your intake manifold and injector choice, you may need to use our RS4 Injector Hats in conjunction with the 034EFI Billet Fuel Rails for proper o-ring spacing.



10. Install 034EFI Billet Fuel Rails using the provided brackets and hardware, taking care to align injectors into appropriate holes in manifold. Ensure that injector o-rings and/or injector hat o-rings are not externally visible; if they are, make sure you have the appropriate fuel rail bracket and spacing for your manifold and fuel injector choice.



11. Next, remove the factory feed and return rubber fuel lines from the hardlines on the passenger side shock tower/firewall, and replace with the provided 034Motorsport rubber feed and return fuel lines and necessary clamps. The shorter hose is the feed hose, and gets attached to the lower hardline via the provided hose clamp (see picture), and the other side goes to the back

(towards the rear of the car) of the passenger fuel rail. Ensure you have the appropriate copper washers to seal the fittings at the rail.



12. Next, run the crossover fuel line from the front of the passenger fuel rail to the front side of the driverside fuel rail. We recommend routing it under the throttle body. After that, install the Fuel Pressure Regulator Adapter into the backside of the driverside fuel rail, making sure you have the appropriate copper washers to seal the adapter to the rail. You may need to add an additional copper washer to orient the adapter correctly.





13. Once the Fuel Pressure Regulator Adapter is attached to the fuel rail, carefully install the Fuel Pressure Regulator into the adapter housing, once again using some type of fuel safe lubricant so you do not damage the o-ring.
14. If a fuel pressure gauge is to be used, choose your 1/8" NPT provision on the adapter housing (there are two on opposite sides from each other), and plug the unused hole with the provided 1/8" NPT plug. Fuel safe thread sealant can be used.

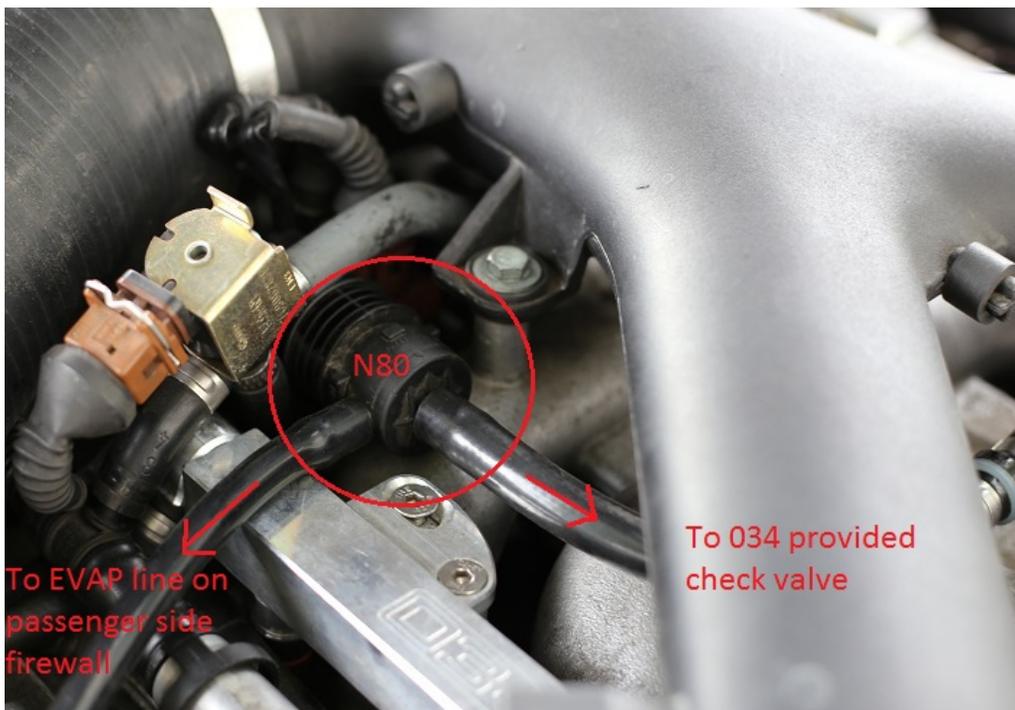


15. Next, install and tighten the provided brass barbed fitting to the Fuel Pressure Regulator Adapter, and plug the opposite hole using the provided -6AN plug. Secure the 034 provided rubber fuel return line from the barb to the hard line on the passenger side of the firewall.
16. Ensure all fuel connectors are tight and secure, with the proper copper washers.
17. Next, take the Y shaped rubber/silicone line with check valve that is supplied with the fuel rail kit; this will allow you to reconnect your diverter valves and the N80 purge valve. Following the provided diagram, connect the lower section of the Y shaped line (the part without a check valve on it) to the port on top of your intake manifold (or on the back of your intake manifold), where the N249 originally was attached.





18. You may then run the line under the intake manifold or above it, with the check valve section going to the passenger side of the manifold, attaching to the N80 purge valve like pictured. The check valve will ensure you do not pressurize your EVAP system. If you have removed your EVAP system, you can plug/remove this section entirely.



19. The other end of the line with two small $\frac{1}{4}$ " nipples is for your diverter valves; run both diverter lines to this.



20. Finally, orient the injectors to clear the fuel rail and attach the electrical connector adapters; the injectors near the rear of the engine will require a specific position so as not to hit the fuel rail or valve cover with the electrical adapter.
21. We highly suggest you pressure test the vehicle to ensure there are no o-ring leaks or any leaks in the new line provided for the diverter valves and N80 purge. When you are ready, turn the key to the ACC position and prime the fuel pump, ensure there are no major fuel leaks.
22. Start the car; for safety, have a friend start the vehicle while you watch the engine bay for leaks. Have a rag ready and ensure your friend can hear or see you for signals. It will likely take a few tries for the car to start as the new fuel lines and rails are pressurized. If the car will not start after a few tries, stop, take a deep breath, and make sure you aren't forgetting something.

